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Access to information and the role of environmental assessment registries for public participation

Lisa F. Odparlik* and Johann Köppel

Abstract

International practice shows an increasing use of web-based Environmental Assessment (EA) registries or project websites to provide public access to information. In support of statutory public participation, registries inform when to participate and provide relevant documents and the continued availability of information. However, what constitutes good practice in this field? This article proposes a framework for assessing good practice in providing access to information via registries. Based on performance indicators for an 'ideal' registry, the framework allows evaluation in the review categories: framework conditions, notice of projects, provision of documents, accessibility of information and ongoing information regarding the status of the environmental assessment. An explorative case study analysis applies the framework and presents results on the performance of international practice examples.

Keywords: access to information; public participation; EA registries; EA documents

1. Introduction

Environmental assessment (EA) registries are documentation and information systems that serve as a basic tool in the provision of public access to Environmental Assessment decision-making processes⁸. Today, there is an increasing use of web-based registries or project websites to provide such access. In addition to the provision, accessibility and ongoing availability of EA documents and process information (e.g. when to participate, public hearing transcripts), EA registries provide support for statutory public participation.

Access to information has been an important parts of the environmental debate since the environmental movement began in the late 1960s. *'[T]here have been legislative and practical moves to open access to environmental information for all stakeholders that are involved in environmental decision making processes'* (Haklay 2003: 2). International legislation and conventions establishing a link between environmental information and any interested party include the US National Environmental Policy Act (NEPA) (1969) and, in Europe, the Aarhus Convention, which along with the right to participate in environmental decision-making and the access to litigation, provides the right to receive environmental information held by public authorities (Hartley & Wood 2005). The fact that *'information increases the effectiveness of participation'* has been widely accepted (Hadden 1981: 538). Hourdequin et al. (2012) even consider it to be a prerequisite for a successful democracy. Hartley and Wood (2005) and Wiklund (2011) found the poor provision of information to be one of the key barriers to effective participation in practice and a reason for nonparticipation in EA. Although the mere provision of information falls into the category of *'Tokenism'*

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⁸ The term Environmental Assessment (EA) is used as an umbrella term owing to the different denotations in the investigated countries. It comprises environmental impact assessment, environmental assessment, strategic environmental assessment, programmatic environmental assessment, etc.

in Arnstein's (1969) *'Ladder of Citizen Participation'*, it constitutes an inevitable prerequisite. Access to relevant information enables stakeholders to understand potential impacts, differentiate various planning alternatives and identify the potential consequences of their own preferences and objectives (Hourdequin et al. 2012). The provision of comprehensive information leads to greater transparency and a greater ability to become involved (Kramer et al. 2011).

However, formal accessibility of information on agency websites or in government documents does not automatically lead to substantive accessibility. This may be the case when information is provided but the public is unaware of it, does not know how to access it or is missing the expert knowledge to understand it (Hourdequin et al. 2012). The transparent provision of planning documents as well as education on how to locate, interpret and effectively utilize this information are important pre-requisites to overcoming the *'expertise barrier'* (the lack of scientific, technical or political knowledge; Parthasarathy 2010: 355) and lay – expert tensions in environmental decision-making processes.

This leads to the overall question, what constitutes good practice in the provision of access to information? How can EA registries be used to provide access to information? What information should be provided and what functionalities support the access? Hanna and Noble (2011: 222), for example, pictured an ideal registry defining the basic functions and principles that should be in place, including holding all documentation related to an EA, regardless of the stage of the application and review process: notices of hearings, impact studies and supporting documentation, the EA application itself, the decision and reasons for the decision, follow-up requirements and even the monitoring of results. The perfect registry *'would be complete; information would be posted in easily accessible formats and would be readable for broad audiences'* (Hanna & Noble 2011: 222). This article proposes a framework for assessing good practice in providing access to information via web-based EA registries. Based on Hanna and Noble's picture of the ideal registry, additional literature review leads to performance indicators for an *'ideal'* (best practice) registry. An explorative case study analysis is used to apply the framework, presenting results on good practice and shortcomings as well as remaining challenges.

2. Methodology

A review framework (Box 1) of relevant evaluation categories and indicators was developed (cf. Geißler 2013; Kolhoff et al. 2013) based on academic literature (Findlay 2010 [1]; Hanna & Noble 2011 [2]; Ryan et al. 2011 [3]; Claus et al. 2012 [4]; Odparlik et al. 2013 [5]). The framework allows for an evaluation of registries (cases) in five review categories: framework conditions, notice of projects, provision of documents, accessibility of information and ongoing information about the status of the environmental assessment. Each category includes indicators to assess practice performance. An ideal registry fulfils all of the stated indicators and thus Hanna and Noble's (2011) three essential notions of completeness, accessibility and readability.

Box 1. The ideal registry...

Framework conditions

- has a legal obligation for project developers and lead agency to provide documents and information on the project, plan, program and policy (obligatory part of the process) [1,2,4]

Notice of projects with an EA in progress (open cases)

- gives a systematic overview on ongoing and completed projects with EA [2].
- provides basic information about a specific project (abstract) [1,2,4].
- supports the cartographic localization of projects [2].

Provision of documents

- contains all EA documents [2,4,5].
 - early stage information (e.g. notice of intent, terms of reference, early correspondence, screening document) [2].
 - notices of hearings [2].
 - transcripts and other material of public hearings [5].
 - scoping documents [5].
 - impact studies [2,4].
 - other supporting documentation (additional studies, technical information, maps) [2,4].
 - EA application [2].
 - public submissions/comments [2,4].
 - response to public comments (reasons for in- or exclusion) [5].
 - decision and reasons for the decision (list with assessment criteria) [2,4].
 - monitoring and follow-up requirements [2].
 - monitoring results [2].
- contains a list of unpublished documents (e.g. on the basis of copyright protection) [1,2].

Accessibility of information (easily accessible formats, readable for broad audiences)

- gives basic information about the process of environmental impact assessment, legal aspects and requirements [4].
- Lists all institutions involved in the process (e.g. responsible authority, project proponent) with their specific contacts (including contact data, tasks and responsibilities in the process) [4].
- gives instructions how to use the registry [5].
- provides additional services to improve the user experience (e.g. audio or video transmission of public hearings on the Internet) [5].
- enables on-line entry of comments/opinions on the process or to the procedural documents [5].
- provides instructions on plain language to enhance readability [3].

Ongoing information about the status of the environmental assessment

- includes an illustration of the general sequence of the process and the current status of progress [4].
- offers digital information services (e-mail alerts, RSS feeds) in order to follow the activities within the process and provide fair notice [5].

The identification of cases (EA registries or websites) was based on a web search conducted between September 2012 and February 2013. For the search engine strategy (cf. Eysenbach et al. 2002; Nachmias & Gilad 2002; Niermann et al. 2012), a predetermined selection of keywords was used separately or in combination, and Google served as the search engine. Keywords included different terms and abbreviations for the assessment and documents (e.g. environmental assessment, EA, environmental impact assessment, EIA, strategic environmental assessment, SEA, programmatic environmental assessment, PEIS, EIA documents, environmental impact statement,

EIS, environmental impact report, EIR, record of decision, ROD). Grounded on already known examples or legal requirements, keywords were paired with names of countries or lead agencies in a subsequent search.

The identified dataset was classified into four categories:

- Websites, mainly provided by lead agencies, containing a list of projects or EA process information without search or filter function;
- Project websites providing information on a single project (e.g. the Scottish Government Offshore Wind SEA Report);
- EA register containing databases with information on EA cases and supported by a search or filter function to browse through the referenced projects via keywords and framework data (e.g. agency, location, reference number, date, topic or sector, status, proponent);
- General register containing searchable databases with relevant EA information but also other non-EA related information (e.g. the World Banks Project Database).

According to the defined inclusion criteria, 38 cases in seven countries and three global institutions were identified for further analysis. These included 18 EA registers, four general registers, six project websites and 10 agency websites (Table 3). This merely represents an explorative assessment and cannot be regarded as conclusive.

All 38 cases were examined against the criteria for an ideal registry, identified in Box 1. It was determined whether: (1) the criterion was met; (2) the criterion was not met; or (3) the criterion was partly met (e.g. if a specific type of document, such as a scoping document, was provided only for less than half of the sample, or if there was a legal obligation to provide information but the law did not clearly state that this had to be presented via the Internet).

Table 3: List of investigated cases

Country	Name of Registry/Website (Heading)
Australia	Government of Western Australia – Environmental Protection Authority: EPA Reports Queensland Government – Department of State Development, Infrastructure and Planning: Assessments and Approvals – Coordinated Projects New South Wales Government – Planning & Infrastructure: Major Project Assessments Tasmania – Department of Infrastructure, Energy & Resources: Infrastructure Projects Tasmania – Environmental Protection Authority: EPA Approval Process Broken Hill City Council (New South Wales): Planning Proposals Open for Public Comment Australia Pacific LNG (Origin + Conoco Phillips, Sinopec): Environmental Impact Statement Incitec Pivot Limited (Kooragang Islands NSW): Library – Environmental Impact Statements
Austria	Umweltbundesamt Österreich: UVP-Datenbank Umweltbundesamt Österreich: UVP-Feststellungsverfahren BMVIT (Bundesministerium für Verkehr, Innovation und Technologie): Autobahnen und Schnellstraßen Niederösterreich: Umweltrecht aktuell Niederösterreich: UVP Flughafen Wien Flughafen Wien AG: VIE (Vienna International Airport)

Country	Name of Registry/Website (Heading)
Canada	Canadian Environmental Assessment Agency: Canadian Environmental Assessment Registry (CEAR) Ontario Government: Environmental Registry Ontario Ministry of the Environment: Environmental Assessments British Columbia Government: Project Information Centre (e-PIC) Mackenzie Valley Review Board (Northwest Territories): Public Registry
China	The Government of the Hong Kong Special Administrative Region - Environmental Protection Department: Environmental Impact Assessment Ordinance
Italy	Autonome Provinz Bozen Südtirol – Abteilung Landesagentur Umwelt: UVP-Veröffentlichung von Plänen und Projekten
UK	Forestry Commission: Register of Environmental Impact Assessments Department of Environment, Food & Rural Affairs: Environmental Impact Assessment – Public Register The Scottish Government: SEA Database The Scottish Government: Offshore Wind – SEA Report
USA	U.S. Government Printing Office: U.S. Federal Registry U.S. Environmental Protection Agency: EPA EIS Database U.S. Department of the Interior – Bureau of Land Management: Land Use Planning and NEPA Register U.S. Department of the Interior – Bureau of Land Management: NEPA Documents Bureau of Land Management + Department of Energy (both Washington Office): Solar Energy Development Programmatic EIS Information Center U.S. National Park Service: Planning, Environment & Public Comment Site (PEPC) New York State Department of Environmental Conservation: SEQR Environmental Impact Assessment in New York State Californian Energy Commission: Energy Facilities Siting/ Licensing Process Washington State Department of Transportation: WSDOT Projects Washington State Department of Ecology (WSDE): SEPA Register
Global	Secretary of the Antarctic Treaty: EIA Database European Bank for Reconstruction and Development: Environmental and Social Impact Assessments World Bank: Projects & Operations

3. Results and discussion

The results show that none of the cases satisfied all indicators of the ideal registry. Only 10 cases clearly scored more than 50% (this excludes cases that achieved a ‘*partly*’ for some of the criteria). Two cases, namely the Project Information Centre in British Columbia and the Energy Facilities Siting and Licensing Process website by the Californian Energy Commission showed the best compliance (22 criteria), closely followed by the Mackenzie Valley Review Board Public Registry (21).

3.1 Framework conditions

The notice to participate is often based on a legal obligation to provide documents and information on the project, plan, programme or policy. To determine whether the provision of information was based on such a legal obligation, respective laws referred to on the website as well as applicable EA laws were investigated.

Legal requirements clearly asking to publish information on the Internet were present in six of the investigated countries (e.g. New South Wales (Australia) – Environmental Planning and Assessment Amendment (Part 3A Repeal) Regulation 2011 No 510; and UK – Environmental Assessment (Scotland) Act 2005 Paragraph 10 (2)(b)). Nine cases indicated a legal obligation or a general statement in a policy to disclose information but not necessarily via the Internet (e.g. Tasmania (Australia) – Environmental Management and Pollution Control Act 1994, Part 5 EIA; 74. (7); Western Australia – Environmental Protection Act 1986 Part IV, Division 1, 44 (3a)).

In the USA, NEPA prescribes informing interested parties about planned hearings and the availability of environmental documents. All of the important steps of a project or programmatic EA are published in the US Federal Registry: *‘Published daily and available on-line, the Federal Register contains hundreds of pages [...] announcing the availability of agency documents, the location of upcoming meetings, and the text of proposed and final regulations’* (Gardner 2011: 24). Additionally, the US Environmental Protection Agency (Office of Federal Activities) has been designated as the official recipient of all EISs prepared by federal agencies (EPA 2013, online). Information is published in the EIS Database. Other Federal Departments (e.g. US Department of the Interior – Bureau of Land Management or US National Park Service) follow the requirements under Section 508⁹ of the Rehabilitation Act (29 U.S.C. 794D), ensuring that the electronic and information technology allows access to information and data. In the states of California, New York and Washington, further requirements have been set up. Since 2006, the *‘EIS on the web requirement’* in the New York SEQR (State Environmental Quality Review Act) has triggered the publication of DEIS (Draft Environmental Impact Statements) and FEIS (Final Environmental Impact Statements) on publicly accessible websites. Documents must remain online for at least one year after the final decision.

Legal obligations to register EA processes in one central register can also be found in Canada (Canadian Environmental Assessment Registry), for federal EAs. In Austria, the EIA Act (UVPG, §43) assigns this task to the Environmental Protection Agency. The information is collected in an online accessible database with search functions, allowing for retrieval of information on current approval processes.

3.2 Notice of projects

A systematic overview of ongoing and completed projects with EA provides initial information where participation might be possible. The majority of cases examined offered this overview. Twenty-three cases provided an overview of ongoing and 24 of completed projects, either with a list of projects and the indication of their status or with a specific filter function for project status. The geographic location of projects was shown in 13 of 38 cases (e.g. Canadian Environmental Assessment Registry –Figure 7). Basic information about a specific project (e.g. name, reference number, proponent) was generally provided, whereas the provision of a short abstract was not the rule.

⁹ Under Section 508 of the Rehabilitation Act (29 U.S.C. 794D), Federal departments and agencies shall ensure, unless an undue burden would be imposed on the department or agency, that the electronic and information technology allows access to information and data, regardless of the type of medium of technology, subject to the provisions as outlined in Section 508.



The screenshot shows the Canadian Environmental Assessment Agency's website. At the top, there is a banner with a red maple leaf and the text "Canadian Environmental Assessment Agency" and "www.ceaa-acee.gc.ca". Below the banner is a navigation bar with links: Français, Home, Contact Us, Help, Search, and canada.gc.ca. The main content area is titled "Canadian Environmental Assessment Registry" and includes a description: "The Canadian Environmental Assessment Registry contains information about projects that are subject to the Canadian Environmental Assessment Act, 2012." There are three main sections: "Public Participation" with links to "View current public comment opportunities" and "View current participant funding opportunities"; "Find a Project" with a search bar and links to "Browse projects" and "Advanced project search"; and "Geographic View" which features a map of Canada with markers indicating project locations. A legend shows a blue circle for "1" and a blue square for "2+". On the left side, there is a sidebar with links to various sections like "About the Agency", "Careers at the Agency", "Media Room", "Environmental Assessments", "James Bay and Northern Quebec Agreement", "Public Participation", "Aboriginal Consultation", "Policy and Guidance", "Legislation and Regulations", "Training Opportunities", "Strategic Environmental Assessment", "Publications", "Frequently Asked Questions", "Canadian Environmental Assessment Registry", "Links", "Site Map", and "Transparency". On the right side, there is a "Learn More" section with links to "About the Registry", "Registry FAQs", "Search Tips", and "Archives", followed by a text block about the Canadian Environmental Assessment Act, 2012.

Figure 7: Screenshot of the Canadian environmental assessment registry with cartographic localization of projects (Source: <http://www.ceaa-acee.gc.ca/050/index-eng.cfm>; cited 29 November 2012). Used with the kind permission of the CEAA.

3.3 Provision of documents

The analysis showed (Table 4), that the online registries and websites were mostly used for notice of hearings (19 yes/4 partly – less than half of the sample), to provide impact studies (20/7) and other supporting documents, technical information or maps (20/4), and to announce and publish the decision (19/3). Published information on participation was only provided in a few cases:

transcripts and other material of public hearings (8/4), public submission comments (11/6) and the response to these comments (7/3).

The range of documents provided varied greatly. An outstanding example of good practice was the Solar Energy Development Programmatic EIS Information Center for six western states of the USA. It provided additional information on the PEIS process and participation, general information on solar energy and thematic maps and detailed minutes of public participation, which would also allow anyone who did not attend participation meetings to keep track of the discussions. Another example of comprehensive document provision was the website of the Californian Energy Commission: projects were listed according to their approval status. A hyperlink on the project led to a specific project information site with general information (e.g. status, contact information, key dates, general description) as well as information on notices, orders and announcements, documents and reports, a docket log (listing of all the documents filed in a proceeding), committee schedules and a proof of service list (providing contact information).

There was only one registry that (partly) supplied documents in all of the defined categories (some documents were only supplied for part of the projects). The Project Information Centre by the Province of British Columbia (Canada) additionally provided monitoring results in some samples. However, even this case was not consistent in the provision of documents and underlined the general shortcoming of the whole sample: document provision considerably varied between the projects registered, whereby recent projects often showed a better performance than older entries.

Depending on privacy policies, lead agencies in some countries are not allowed to publish certain documents on the Internet (e.g. on the basis of trade secrets). In addition, to provide transparent information about missing documents, four of the 38 cases made use of a list of unpublished documents (e.g. California Energy Commission provided a Docket Log, listing all documents filed in a proceeding).

Table 4: Overview of the provision of documents in the investigated cases

Documents	Yes	Partly	No
very early stage information	15	3	20
notices of hearings	19	4	15
transcripts and other material of public hearings	8	4	26
scoping documents	12	3	23
impact studies	20	7	11
other supporting documentation	20	4	14
EA application	16	4	18
public submissions/comments	11	6	21
response to public comments	7	3	28
decision and reasons for the decision	19	3	16
monitoring and follow-up requirements	13	7	18
monitoring results	1	0	37

3.4 Accessibility of information

Basic knowledge about the process of EA and its legal aspects and requirements is an important prerequisite for effective participation. In fact, *'results show that the insufficient knowledge of the*

EA process and the opportunities of participation is the single most important reason for nonparticipation' (Wiklund 2011: 172). This finding was recognized with the provision of basic information in 28 of the cases.

To increase the transparency of the environmental assessment process, a website should list all institutions involved in the process (e.g. responsible authority, project proponent) with their specific contacts, tasks and responsibilities. In 16 cases this criterion was entirely fulfilled. The registry for screening decisions by the Federal Environmental Agency Austria informed of the responsible authority, affected communities, project developers and the environmental lawyer. While five cases did not provide any contact information, 17 cases designated one primary contact (e.g. responsible authority).

Understanding how to use the registry establishes another good practice prerequisite. Simple instructions were provided with 64% of the EA and general registries. The Land Use Planning and NEPA Register of the US Department of Interior, Bureau of Land Management, offered a video tutorial on the entry of online comments and how to use the register. Other websites provided intuitive lists of information and downloadable documents.

Besides the general provision of documents and FAQs (Frequently Asked Questions), 14 cases used a variety of IT services for a better usability. Additional services included:

- audio recordings of hearings and audio webcasts (e.g. Canadian Environmental Assessment Registry, Mackenzie Valley Review Board – Public Registry);
- explanatory videos (e.g. Australia Pacific LNG – Environmental Impact Statement, Flughafen Wien AG – Vienna International Airport);
- interactive panorama pictures (e.g. Solar Energy Development Programmatic EIS Information Center) and 3D visualizations (e.g. Chinese Environmental Protection Department – EIA Ordinance);
- information in different languages (e.g. Secretary of the Antarctic Treaty – EIA Database, World Bank Projects Database).

While innovatively using technology constitutes an important part of e-participation, the ability to use new forms of communication and interactions establishes another part (Macintosh 2004). Although the ideal registry promotes these ways of e-participation, only four cases enabled the direct online entry of comments on the process or the procedural documents. The US National Park Service as well as the New South Wales Government provided an online form for submitting comments for each case or document open for public involvement. These forms either asked for the commenter's name or provided an option to withhold the name when comments were published on the website. The aforementioned US Bureau of Land Management Register provided the most advanced e-participation technology. The Comment Submission Wizard of this Register allowed direct marking of specific text passages in the planning document and commenting on it. Even the attachment of files to a comment was possible. A video tutorial and help page provided useful instructions.

Apart from the technical capabilities to enable the accessibility to information and documents of environmental assessments, their readability is often criticized owing to their scope and technical language only coherent to an expert minority (e.g. Ryan et al. 2011). To assist document preparation and define a common standard, five of the cases examined offered instructions about the use of plain language, for example the guidelines on document quality and reader friendliness by the Washington Department of Transportation. Others offered help for people with disabilities to access information (e.g. Planning, Environment & Public Comment Site), an Aboriginal language glossary and plain language handouts on the EA process (e.g. Mackenzie Valley Review Board – Public Registry).

3.5 Ongoing information about the status of the environmental assessment

Last but not least, it is important for the user to stay in the loop about the progress and status of the environmental assessments. Many of the registries and websites presented are organic and adaptive units, which grow with the availability of project information. The New South Wales Planning and Infrastructure Major Project Assessments registry might serve as a role model. Here, a schematic figure of the EA process indicates the status.

The indication of the status alone would require visiting of the registries and websites on a regular basis but new information can also be comfortably received via email alert, RSS Feed, Twitter or Facebook in 16 of the investigated cases.

4. Conclusion

Although none of the investigated cases received the status of an *'ideal registry'*, web-based EA registries and project websites provided several good practice examples that might serve as role models and illustrations. Ideally a meta-information system, as in Canada or Austria, would inform about ongoing or completed environmental assessments. If meta-information is missing or information is simply not accessible via the Internet, access to information becomes much more challenging. Considering the need for adequate *'time to prepare'* before the short windows of opportunity for participation briefly open (Sinclair et al. 2012), knowledge on where to find relevant information and a clear indication of which cases are open for participation become important functions of information systems. While some cases have shown an innovative use of IT services to improve the user experience, specific support for improving the readability of documents (e.g. instructions on plain language) is still rare. Overall, the consistent provision of information still remains a significant task for improvement. The basic framework from Hanna and Noble (2011) for well-shaped registries provides valuable aspects to be further enhanced and elaborated. In addition, what remains to be improved is consideration of the factors of management and maintenance of registries, to assess why some registries perform better than others. Hanna and Noble (2011) point out that budget constraints and limited staff training might be a reason for this inconsistency of document provision and quality control procedures would be a supplemental option.

For the majority of the cases, the establishment of information systems could be explained with respective legal requirements to publish information on the Internet. For political or commercial reasons, however, the disclosure of information in environmental assessments can face opposition from a variety of private and public stakeholders (Gauthier et al. 2011). Preliminary results suggest that the protection of commercial and industrial information, intellectual property rights, protection of personal data, and public security and defence constitute obstacles in the provision of information via online databases. Our further research aims to identify supporting and inhibiting factors for active information provision on the Internet as well as offline supplements and alternatives. At the same time, we hope not only to draw on Hanna and Noble's *'ideal registry'* vision, but also to enhance this approach with ingredients from other cases used in our analyses that would make these qualities work.

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